

**MONTHLY OPERATION REPORT
OF
WATER TREATMENT PLANT**

For Month of March 2019

Flint Water Plant
NAME OF WATER SYSTEM

2310
WSSN

Genesee
COUNTY

Robert Jones
CERTIFIED OPERATOR

D-1
CLASSIFICATION


SIGNATURE OF APPROPRIATE OFFICIAL

TREATMENT RATE AND FILTER DATA

1. Treatment Rate, Maximum 12.76 Million Gallons Per Day
2. Treatment Rate, Approved Rated Plant Capacity 36 Million Gallons per Day
3. Average Filter Run N/A Hours, Average Head Loss N/A Feet
4. Average Filtration Rate N/A Gallons per Square Ft. per Minute
5. Maximum Filtration Rate N/A Gallons per Square Ft. per Minute
6. Average Wash Water Use N/A percent of Treated Water

CHEMICAL DATA

7. Sodium Hypochlorite on hand at CS2 3737 gal.: Estimated supply 66 days
8. Sodium Hypochlorite on hand at outstations 255 gal: Estimated supply 42 days.
9. Phosphoric Acid on hand 988 gal.: Estimated supply 47 days
9. Sodium Hydroxide on hand 5340 gal.: Estimated supply 32 days

Remarks:

Submit to: MDEQ - Office of Drinking Water & Municipal Assistance
LANSING DISTRICT OFFICE
525 West Allegan Street, 1st Floor South
(Constitution Hall)
PO Box 30242
Lansing, MI 48909-7742



Fluoridation & Chlorination

WSSN 2310

Mar-19

DATE	Fluoride Applied F mg/l			Fluoride Analyses mg/l			Chlorine App. Mg/l			Chlorine Residual mg/l						
	14	15		16	17	18	19	20	21	22	23	24	25	26	27	28
		Raw	Tap													
1		0.59	0.66			1.02				1.1					1.7	
2		0.58	0.67			0.97				1.2					1.5	
3		0.68	0.70			1.12				1.1					1.7	
4		0.65	0.67			0.96				1.1					1.7	
5		0.61	0.66			0.94				1.1					1.7	
6		0.84	0.88			1.03				1.2					1.8	
7		0.61	0.69			1.08				1.0					1.7	
8		0.65	0.69			1.11				1.1					1.8	
9		0.60	0.61			1.01				0.9					1.7	
10		0.60	0.60			0.91				1.1					1.7	
11		0.68	0.73			1.04				1.1					1.7	
12		0.67	0.68			1.03				1.1					1.7	
13		0.68	0.71			0.95				1.1					1.6	
14		0.73	0.71			0.96				1.1					1.6	
15		0.66	0.68			0.95				1.2					1.7	
16		0.69	0.67			0.97				1.1					1.8	
17		0.65	0.70			0.98				1.1					1.8	
18		0.67	0.71			1.00				1.1					1.7	
19		0.73	0.74			1.00				1.1					1.8	
20		0.62	0.63			1.04				1.1					1.7	
21		0.61	0.61			1.00				1.1					1.7	
22		0.63	0.68			1.00				1.0					1.7	
23		0.62	0.65			1.07				0.9					1.6	
24		0.68	0.66			1.10				1.1					1.8	
25		0.65	0.68			1.08				1.1					1.7	
26		0.65	0.68			1.03				1.0					1.8	
27		0.64	0.68			0.95				1.1					1.8	
28		0.51	0.51			1.06				1.0					1.7	
29		0.59	0.61			1.06				1.2					1.8	
30		0.57	0.61			1.09				1.2					1.7	
31		0.53	0.55			1.05				1.1					1.8	
AVG			0.67			1.02				1.1					1.7	
MAX			0.88			1.12				1.2					1.8	
MIN			0.51			0.91				0.9					1.5	



Chemical Analyses

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D A T E	pH		Total Hardness as CaCO ₃ mg/l		Total Alkalinity as CaCO ₃ mg/l		NonCarbonate Hardness as CaCO ₃ mg/l		Iron mg/L		Calcium Ca ²⁺ mg/l		Magnesium as Mg ²⁺ mg/l		Chloride as Cl ⁻ mg/l	
	CSII	Tap	Raw	Tap	Raw	Tap	Raw	Tap	Raw	Tap	Raw	Tap	Raw	Tap	Raw	Tap
	29	30	31	32	33	34	35	36	37	38.00	39	40	41	42	43	44
1	7.21	7.50		106	86	86		36	0.02	0.02		28.1		8.7		13
2	7.32	7.48		100	80	80		26	0.0	0.01		29.7		6.3		14
3	7.23	7.54		106	86	86		34	0.01	0.00		28.9		8.3		14
4	7.21	7.49		106	86	86		34	0.03	0.03		28.9		8.3		14
5	7.18	7.48	102	104	82	86	32	32	0.01	0.03	28.1	28.9	7.8	7.8	13	13
6	7.21	7.44		106	86	86		36	0.02	0.03		28.1		8.7		14
7	7.21	7.50		106	86	86		36	0	0.00		28.1		8.7		14
8	7.21	7.44		108	88	88		38	0	0.01		28.1		9.2		14
9	7.36	7.49		104	86	86		32	0.02	0.01		28.9		7.8		15
10	7.20	7.46		106	86	86		32	0	0.01		29.7		7.8		15
11	7.18	7.41		108	86	86		36	0.04	0.02		28.9		8.7		14
12	7.21	7.40	106	106	84	86	36	36	0.01	0.02	28.1	28.1	8.7	8.7	14	14
13	7.30	7.52		108	84	84		38	0.01	0.06		28.1		9.2		14
14	7.28	7.43		108	86	86		38	0.04	0.02		28.1		9.2		14
15	7.30	7.45		108	86	86		36	0.03	0.01		28.9		8.7		14
16	7.24	7.44		108	88	88		38	0.02	0.01		28.1		9.2		14
17	7.25	7.42		108	88	88		38	0.04	0.01		28.1		9.2		13
18	7.29	7.48		108	88	88		38	0	0.01		28.1		9.2		14
19	7.29	7.42	108	108	84	88	38	38	0.01	0.03	28.1	28.1	9.2	9.2	14	14
20	7.39	7.48		108	88	88		38	0	0.00		28.1		9.2		15
21	7.28	7.45		108	88	88		38	0.02	0.02		28.1		9.2		15
22	7.23	7.47		108	88	88		38	0.04	0.02		28.1		9.2		14
23	7.38	7.51		106	88	88		38	0.02	0.02	27.3	27.3	9.2	9.2	14	14
24	7.28	7.45		108	88	88		38	0.03	0.02		28.1		9.2		13
25	7.31	7.49		104	90	90		32	0	0.00		28.9		7.8		14
26	7.30	7.50	106	104	88	88	36	32	0.03	0.01	28.1	28.9	8.7	7.8	13	14
27	7.35	7.54		108	88	88		38	0.01	0.01		28.1		9.2		15
28	7.29	7.47		108	86	86		36	0.02	0.02		28.9		8.7		18
29	7.32	7.46		98	74	74		22	0.01	0.01		30.5		5.3		10
30	7.27	7.45		100	94	94		24	0.01	0.01		30.5		5.8		13
31	7.30	7.45		104	90	90		32	0.01	0.01		28.9		7.8		10
AVG	7.27	7.47		106	87	87		35		0.02		28.6		8.4		14
MAX	7.39	7.54		108	94	94		38		0.06		30.5		9.2		18.0
MIN	7.18	7.40		98	74	74		22		0.00		27.3		5.3		10.0



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DATE	Total Coliform										Temp deg.C	Conductivity (mS)		Color		Odor	
	Plant Tap					Standard Plate Count		Raw	Tap	Raw		Tap	Raw	Tap	Raw	Tap	
	Dort	3MG Well	Sta II	Lab Tap	60	61	62										63
1				2/0								0.24	6.4				
2				2/0								0.24	5.9				
3				2/0								0.25	6.6				
4				2/0								0.25	6.5				
5				2/0								0.25	5.9				
6				2/0								0.25	6.8				
7				2/0								0.25	6.1				
8				2/0								0.24	6.5				
9				2/0								0.25	6.8				
10				2/0								0.24	7.2				
11				2/0								0.24	6.3				
12				2/0								0.25	6.3				
13				2/0								0.25	6.5				
14				2/0								0.24	7.1				
15				2/0								0.24	7.0				
16				2/0								0.25	5.8				
17				2/0								0.25	6.2				
18				2/0								0.24	6.2				
19				2/0								0.24	6.6				
20				2/0								0.24	7.3				
21				2/0								0.25	7.5				
22				2/0								0.24	7.4				
23				2/0								0.24	6.2				
24				2/0								0.25	6.6				
25				2/0								0.25	7.1				
26				2/0								0.25	6.0				
27				2/0								0.25	7.1				
28				2/0								0.25	6.9				
29				2/0								0.25	7.7				
30				2/0								0.25	7.9				
31				2/0								0.26	7.3				
AVG												0.25	6.7				
MAX												0.26	7.9				
MIN												0.24	5.8				



Distribution System Monitoring WSSN 2310

Mar-19

DATE	Free Chlorine Residual at Bacteriological Monitoring Stations mg/l																					Chlorine only sites mg/l					Number of Samples										
	1	2	3	4	CS	6	7	8	9	10	WR	12	13	14	15	16	17	18	19	20	26	27	28	29	30	21		22	23	24	25						
1															1.56	1.72	1.41	1.13							1.81							1.67	6				
2																																	0				
3																																	0				
4	1.56	1.84	1.64	1.66	1.86	1.59																		1.77			1.48						8				
5							1.65	1.70	1.75	1.73	1.75	1.57	1.35								1.59						1.58						9				
6														1.77	1.53	1.77	1.76	1.48	1.09														8				
7	1.59	1.74	1.65	1.64	1.88															1.54													8				
8																1.72	1.69	1.44																5			
9																																		0			
10																																		0			
11	1.66	1.72	1.62	1.51	1.80	1.36																					1.20							8			
12							1.62	1.79	1.80	1.75	1.80		1.52							1.61														8			
13														1.39	1.45	1.63	1.64	1.45	1.30															8			
14	1.53	1.63	1.47	1.37	1.63															1.51														8			
15																																			5		
16																																			0		
17																																			0		
18	1.51	1.64	1.43	1.17	1.67	1.13																													8		
19																																				0	
20																																				8	
21																																				0	
22	1.61																																			0	
23																																				0	
24																																					0
25	1.18	1.60	1.53	1.06	1.76	1.17																														8	
26																																				9	
27							1.53	1.76	1.76	1.70	1.67	1.31	1.37							1.54																9	
28																																					9
29																																					4
30																																					0
31																																					0
Monthly Cl ₂ Avg.																																		1.58			
Total Samples																																		125			



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ROUTINE POSITIVE DISTRIBUTION SAMPLES

Total number of positive routine samples:				Total Coliform: <u>0</u>		E. coli Bacteria: <u>0</u>		Chlorine Residual (mg/L)			
Date	Monitoring Station	Total Coliform	E. coli Bacteria	Date	Time	Retest of Station, Upstream & Downstream	Total Coliform	E. coli Bacteria	Free	Total	
Total number of routine distribution samples analyzed:											
Total number of routine distribution samples required:											

Total number of routine distribution samples analyzed: **125**
 Total number of routine distribution samples required: **100**



Distribution System Monitoring

WSSN 2310

Mar-19

DATE	Total Chlorine Residual at Bacteriological Monitoring Stations mg/l																				Chlorine only sites mg/l					Number of Samples						
	1	2	3	4	CS	6	7	8	9	10	WR	12	13	14	15	16	17	18	19	20	26	27	28	29	30		21	22	23	24	25	
1	1.77	2.04	1.89	1.89	2.10	1.85										1.92	1.96	1.69	1.31												1.86	6
2																																0
3																																0
4	1.77	2.04	1.89	1.89	2.10	1.85																	2.01				1.74					8
5							1.88	1.89	2.01	1.95	1.96	1.83	1.55								1.84				2.04		1.79				9	
6	1.78	2.09	1.90	1.98	2.12									2.00	1.76	2.03	1.99	1.70	1.30									1.94			8	
7																1.97	1.93	1.67			1.66								1.92		8	
8																														1.75	5	
9																															0	
10																															0	
11	1.89	1.96	1.83	1.73	2.06	1.58																	1.68				1.57				8	
12							1.85	2.05	2.02	1.97	2.00		1.73								1.81				1.98			1.81			8	
13														1.66	1.70	1.89	1.86	1.66	1.50										1.99		8	
14	1.69	1.87	1.66	1.56	1.91															1.70										1.80	8	
15																1.39	1.88	1.44	1.42												5	
16																															0	
17																															0	
18	1.69	1.86	1.66	1.34	1.92	1.34																	1.87								8	
19																															0	
20														1.72	1.45										1.94						10	
21														1.96		1.89	1.87	1.30		1.48											9	
22	1.82														1.70	1.92	1.89			1.60	1.76	1.91							1.62	1.83	1.79	7
23																															1.84	7
24																																0
25	1.70	1.77	1.71	1.28	1.96	1.70																										0
26							1.75	1.97	1.96	1.94	1.90	1.55	1.52																			8
27														2.01	1.82	1.97	2.02	1.72	1.33					2.03						2.02	1.88	9
28																					1.68		1.97									4
29																																0
30																																0
31																																0
Monthly Cl ₂ Avg.		1.81																														
Total Samples		125																														